



## **Coastal Protection and Restoration Authority of Louisiana**

### **Office of Coastal Protection and Restoration**

## **2010 Annual Inspection Report**

### **Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass Restoration**

State Project Number BA-38  
Priority Project List 11

August 31, 2011  
Plaquemines Parrish

Prepared by:

Barry Richard, P.E.  
CPRA/ Office of Coastal Protection and Restoration  
New Orleans Field Office  
CERM, Suite 309  
2045 Lakeshore Dr.  
New Orleans, La 70122

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## **I. Introduction**

The Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass Restoration (BA-38) has one project area located between Pass La Mer and Chaland Pass (Chaland Headland) and is located at the approximate coordinates 30° 08' 00" N latitude and 92° 45' 00" W longitude. The other project area is located at Pelican Island between Fontanille Pass (Empire Waterway) and Scofield Pass along the Plaquemines barrier shoreline and is located at the approximate coordinates 30° 08' 00" N latitude and 92° 45' 00" W longitude. Both project areas are located in Plaquemines Parish.

## **II. Project Description and History**

The Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass Restoration (BA-38) consists of nourishing and rebuilding the shoreline with sediment to create a beach berm, dune, and a back barrier marsh platform. The wetlands, dune, and swale habitats within the project area have undergone substantial loss due to oil and gas activities, subsidence, sea-level rise, and marine and wind induced shoreline erosion. Marine processes acting on the abandoned deltaic headlands and barrier islands rework and redistribute the previously deposited sediment. In these areas along the shoreline, there are several locations where the shoreline has receded and decreased to a critical width that is susceptible to breaching during storms. The short term land loss rate for the Pass La Mer to Chaland Pass area is -46.6 acres per year or 3.36% per year. The short term land loss rate for the Fontanelle Pass to Scofield Pass reach is -20.79 acres per year or 4.36% per year.

Construction of the Pass La Mer to Chaland Pass Restoration Project (BA-38-2) was completed in January, 2007. At this time construction has not begun on the Pelican Island Restoration Project (BA-38-1).

The Barrier Island Maintenance Program (BIMP) performed a maintenance installation of sand fence in January, 2010. Approximately 10,000 linear feet of fencing was placed in areas determined to be the most in need of it. The remainder of the fencing will be installed during a future project maintenance event.

## **III. Inspection Purpose and Procedures**

The purpose of the annual inspection of the Pass La Mer to Chaland Pass Restoration Project (BA-38-2) is to evaluate the constructed project features to identify any deficiencies and prepare a report detailing the condition of project features and recommended corrective actions needed. Should it be determined that corrective actions are needed, the OCPR shall provide, in the report, a detailed cost estimate for engineering, design, supervision, inspection, and construction contingencies, and an assessment of the urgency of such repairs (O&M Plan). The annual inspection report also contains a summary of maintenance projects and an estimated projected budget for the

upcoming three (3) years for operation, maintenance and rehabilitation. The three (3) year projected operation and maintenance budget is shown in Appendix C. A summary of past operation and maintenance projects completed since completion of the project can be found in Section II.

An inspection of the Chaland Headland Project (BA-38-2) was held on April 28, 2010, by representatives of the OCPR Barry Richard and representatives of the National Marine Fisheries Service (NMFS) Rachel Sweeney and Joy Merino. This inspection was an annual inspection as described in the project O&M Plan. Photographs of that inspection are included in Appendix B of this report.

## **IV. Inspection Results**

### **Sand Fence**

The new sand fencing is in good condition and is performing very well. There is evidence of sand accumulation at the base of the fence. (Photo #1)

### **Containment Dike**

The containment dike was not degraded upon demobilization from the construction site. During the period between demobilization and this inspection the dike has been slowly degrading due to natural processes. In May, 2008, members of the OCPR and NMFS hydraulically cut 4 gaps into the containment dike using a high pressure pump. After Hurricanes Gustav and Ike two of these gaps had become filled in with sand. At the time of the inspection all four were open and flowing water. (Photo #2)

### **Settlement Plates**

One settlement plate was turned on its side. The other six are undamaged and will be surveyed this year.

### **Vegetative Plantings**

Most of the vegetative plantings were damaged due to the storms. However, natural vegetation is starting to emerge in the beach, dune, and marsh area.

## **V. Conclusions**

The Chaland Headland Project area took a big hit during the 2008 hurricane season. Natural processes have both weakened and strengthened the project with the erosion of sediments and sand fencing and the natural vegetation growing in areas where once vegetative plantings did not. With current and future additions of sand fencing and future vegetative plantings the project will once again resume its status as fully functioning, and continue to provide valuable information to help future projects of this type.

## **VI. Recommendations**

It is the recommendation of the OCPR/NOFO that the sand fencing and vegetative plantings be replaced as necessary. This is complete as of the date on this report.

### **Immediate Repairs**

- Sand Fencing and Vegetative Plantings.

### **Programmed Maintenance**

- Sand Fencing and Vegetative Plantings.

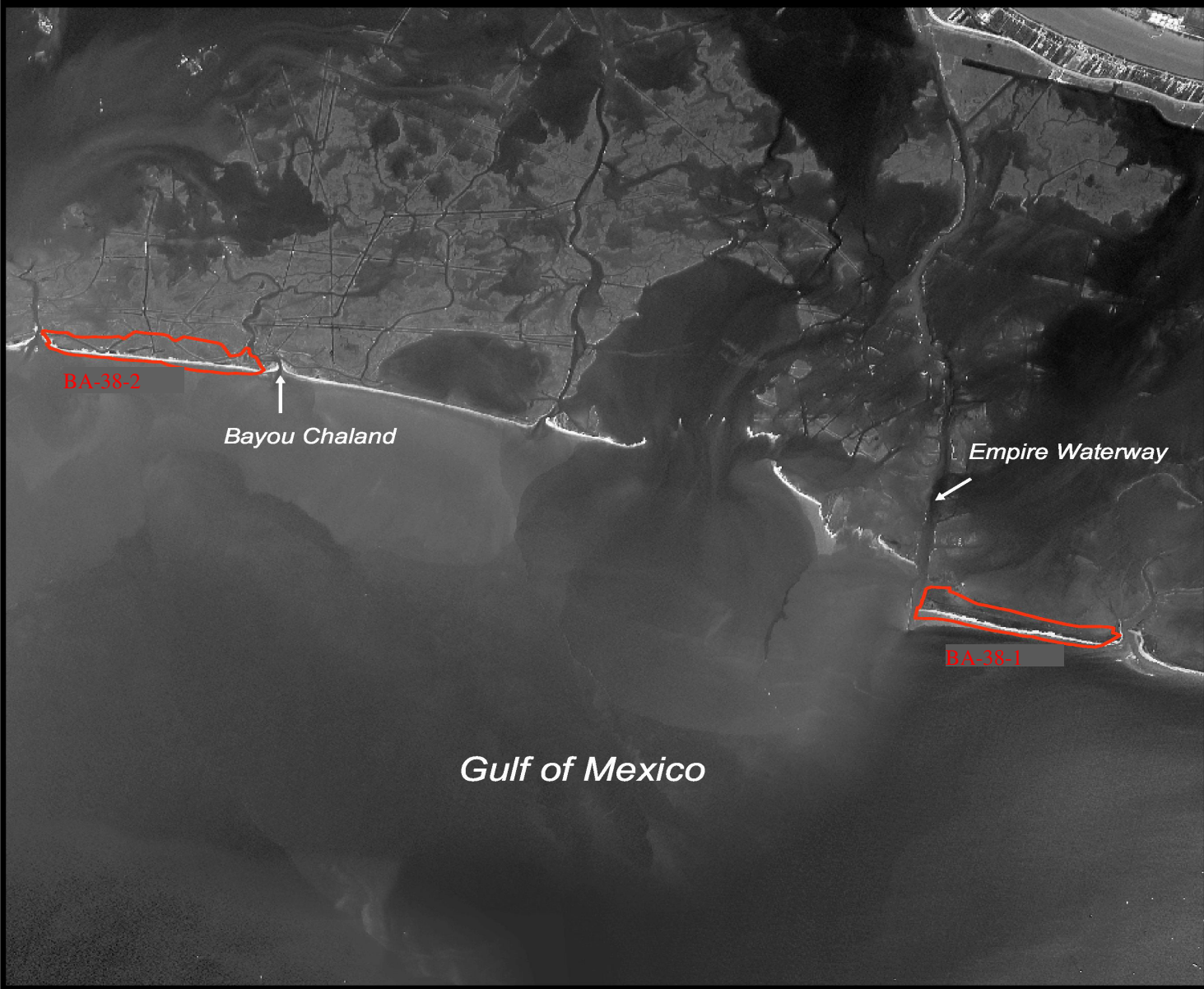
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Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass Restoration

State Project No. BA-38

## **Appendix A**

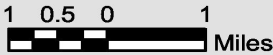
### **Project Features Map**



Pelican Island and  
Pass La Mer to Chaland  
Pass Barrier Island Restoration  
(BA-38)

Legend

 BA-38 boundary



Data Source:  
U.S. Geologic Survey  
National Wetland Research Center  
Coastal Restoration Field Station  
Louisiana Department of Natural Resources  
Coastal Restoration Division and GIS Lab  
2000 SPOT Imagery  
Map Date: May 25, 2004

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## **Appendix B**

### **Photographs**



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**Photo #1 –New Sand Fencing (BIMP).**



**Photo #2 – Western Dike Gap.**

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## **Appendix C**

### **Three Year Budget Projection**

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**Pelican Island and Pas La Mer to Chaland Pass Restoration Project / BA-38 / PPL 11**  
**Three-Year Operations & Maintenance Budgets 07/01/2010 - 06/30/2013**

Project Manager

Barry Richard

O & M Manager

Barry Richard

Federal Sponsor

NMFS

Prepared By

Barry Richard

**2010/2011****2011/2012****2012/2013****Maintenance Inspection**

\$3,156.00

\$3,220.00

\$3,285.00

**General Maintenance**

\$0.00

\$0.00

\$0.00

**Structure Operation**

\$0.00

\$0.00

\$0.00

**State Administration**

\$7,360.00

\$2,000.00

**Federal Administration**

\$7,360.00

\$2,000.00

\$0.00

**Maintenance/Rehabilitation****10/11 Description: Sand Fencing and Veg. Plantings***E&D*

\$14,940.69

*Construction*

\$184,000.00

*Construction Oversight*

\$7,360.00

*Sub Total - Maint. And Rehab.*

\$ 206,300.69

**11/12 Description: Dike Gapping***E&D*

\$368.84

*Construction*

\$3,000.00

*Construction Oversight*

\$180.00

*Sub Total - Maint. And Rehab.*

\$ 3,548.84

**12/13 Description:***E&D*

\$0.00

*Construction*

\$0.00

*Construction Oversight*

\$0.00

*Sub Total - Maint. And Rehab.*

\$ -

**2010/2011****2011/2012****2012/2013****Total O&M Budgets**

\$ 224,176.69

\$ 10,768.84

\$ 3,285.00

**O & M Budget (3 yr Total)**

\$ 238,230.53

**Unexpended O & M Budget**

\$ 242,165.74

**Remaining O & M Budget (Projected)**

\$ 3,935.21

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Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chalant Pass Restoration  
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**OPERATION AND MAINTENANCE BUDGET WORKSHEET 2010/2011**

Pelican Island and Pas La Mer to Chalant Pass Restoration Project / BA-38 / PPL 11

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
O&M Inspection and Report	EACH	1	\$3,156.00	\$3,156.00
General Structure Maintenance	LUMP	1	\$0.00	\$0.00
Engineering and Design	LUMP	1	\$14,940.69	\$14,940.69
Operations	LUMP	1	\$0.00	\$0.00
Construction Oversight	LUMP	1	\$7,360.00	\$7,360.00

**ADMINISTRATION**

LDNR / CRD Admin.	LUMP	0	\$7,360.00	\$7,360.00
FEDERAL SPONSER Admin.	LUMP	0	\$7,360.00	\$7,360.00
SURVEY Admin.	LUMP	0	\$0.00	\$0.00
OTHER				\$0.00
TOTAL ADMINISTRATION COSTS:				\$14,720.00

**MAINTENANCE / CONSTRUCTION****SURVEY**

SURVEY DESCRIPTION:					
	Secondary Monument	EACH	0	\$0.00	\$0.00
	Staff Gauge / Recorders	EACH	0	\$0.00	\$0.00
	Marsh Elevation / Topography	LUMP	0	\$0.00	\$0.00
	TBM Installation	EACH	0	\$0.00	\$0.00
	OTHER				\$0.00
	TOTAL SURVEY COSTS:				\$0.00

**GEOTECHNICAL**

GEOTECH DESCRIPTION:					
	Borings	EACH	0	\$0.00	\$0.00
	OTHER				\$0.00
	TOTAL GEOTECHNICAL COSTS:				\$0.00

**CONSTRUCTION**

CONSTRUCTION DESCRIPTION:	Repair of storm damage to valves, fencing, and embankment. Replacement of storm damaged gate actuator.				
	Rip Rap	LIN FT	TON / FT	TONS	UNIT PRICE
		0	0.0	0	\$0.00
		0	0.0	0	\$0.00
		0	0.0	0	\$0.00
	Filter Cloth / Geogrid Fabric		SQ YD	0	\$0.00
	Navagation Aid		EACH	0	\$0.00
	Signage		EACH	0	\$0.00
	General Excavation / Fill		CU YD	0	\$0.00
	Dredging		CU YD	0	\$0.00
	Sheet Piles (Lin Ft or Sq Yds)			0	\$0.00
	Timber Piles (each or lump sum)			0	\$0.00
	Timber Members (each or lump sum)			0	\$0.00
	Hardware- Gate Actuator, gate sleeves		LUMP	1	\$0.00
	Materials		LUMP	1	\$0.00
	Mob / Demob		LUMP	1	\$50,000.00
	Contingency		LUMP	1	\$0.00
	General Structure Maintenance		LUMP	1	\$0.00
	OTHER -- Veg Plantings		LUMP	1	\$80,000.00
	OTHER -- Sand Fencing		LF	6,000	\$9.00
	OTHER -- Dike Gapping		LUMP	1	\$0.00
TOTAL CONSTRUCTION COSTS:					

\$184,000.00
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**TOTAL OPERATIONS AND MAINTENANCE BUDGET:** **\$224,176.69**

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**OPERATION AND MAINTENANCE BUDGET WORKSHEET 2011/2012**

Pelican Island and Pas La Mer to Chaland Pass Restoration Project / BA-38 / PPL 11

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
O&M Inspection and Report	EACH	1	\$3,220.00	\$3,220.00
General Structure Maintenance (Radio Equip.)	LUMP	1	\$0.00	\$0.00
Engineering and Design	LUMP	1	\$368.84	\$368.84
Operations	LUMP	1	\$0.00	\$0.00
Construction Oversight	LUMP	1	\$180.00	\$180.00

**ADMINISTRATION**

LDNR / CRD Admin.	LUMP	1	\$2,000.00	\$2,000.00
FEDERAL SPONSER Admin.	LUMP	1	\$2,000.00	\$2,000.00
SURVEY Admin.	LUMP	1	\$0.00	\$0.00
OTHER				\$0.00
TOTAL ADMINISTRATION COSTS:				\$4,000.00

**MAINTENANCE / CONSTRUCTION****SURVEY**

SURVEY DESCRIPTION:				
Secondary Monument	EACH	0	\$0.00	\$0.00
Staff Gauge / Recorders	EACH	0	\$0.00	\$0.00
Marsh Elevation / Topography	LUMP	0	\$0.00	\$0.00
TBM Installation	EACH	0	\$0.00	\$0.00
OTHER				\$0.00
TOTAL SURVEY COSTS:				\$0.00

**GEOTECHNICAL**

GEOTECH DESCRIPTION:				
Borings	EACH	0	\$0.00	\$0.00
OTHER				\$0.00
TOTAL GEOTECHNICAL COSTS:				\$0.00

**CONSTRUCTION**

CONSTRUCTION DESCRIPTION:					
Rip Rap	LIN FT	TON / FT	TONS	UNIT PRICE	
	0	0.0	0	\$0.00	\$0.00
	0	0.0	0	\$0.00	\$0.00
	0	0.0	0	\$0.00	\$0.00
Filter Cloth / Geogrid Fabric	SQ YD	0		\$0.00	\$0.00
Navigation Aid	EACH	0		\$0.00	\$0.00
Signage	EACH	0		\$0.00	\$0.00
General Excavation / Fill	CU YD	0		\$0.00	\$0.00
Dredging	CU YD	0		\$0.00	\$0.00
Sheet Piles (Lin Ft or Sq Yds)		0		\$0.00	\$0.00
Timber Piles (each or lump sum)		0		\$0.00	\$0.00
Timber Members (each or lump sum)		0		\$0.00	\$0.00
Hardware	LUMP	1		\$0.00	\$0.00
Materials	LUMP	1		\$0.00	\$0.00
Mob / Demob	LUMP	1		\$0.00	\$0.00
Contingency	LUMP	1		\$0.00	\$0.00
General Structure Maintenance	LUMP	1		\$0.00	\$0.00
OTHER -- Veg Plantings	LUMP	1		\$0.00	\$0.00
OTHER -- Sand Fencing	LF	0		\$0.00	\$0.00
OTHER -- Dike Gapping	LUMP	1		\$3,000.00	\$3,000.00
TOTAL CONSTRUCTION COSTS:					\$3,000.00

**TOTAL OPERATIONS AND MAINTENANCE BUDGET:** **\$10,768.84**



## Annual Inspection Report

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**OPERATION AND MAINTENANCE BUDGET WORKSHEET 2012/2013**

Pelican Island and Pas La Mer to Chaland Pass Restoration Project / BA-38 / PPL 11

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
O&M Inspection and Report	EACH	1	\$3,285.00	\$3,285.00
General Structure Maintenance (Radio Equip.)	LUMP	1	\$0.00	\$0.00
Engineering and Design	LUMP	1	\$0.00	\$0.00
Operations	LUMP	1	\$0.00	\$0.00
Construction Oversight	LUMP	1	\$0.00	\$0.00
<b>ADMINISTRATION</b>				
LDNR / CRD Admin.	LUMP	1	\$0.00	\$0.00
FEDERAL SPONSER Admin.	LUMP	1	\$0.00	\$0.00
SURVEY Admin.	LUMP	1	\$0.00	\$0.00
OTHER				\$0.00
<b>TOTAL ADMINISTRATION COSTS:</b>				<b>\$0.00</b>

**MAINTENANCE / CONSTRUCTION****SURVEY**

SURVEY DESCRIPTION:					
	Secondary Monument	EACH	0	\$0.00	\$0.00
	Staff Gauge / Recorders	EACH	0	\$0.00	\$0.00
	Marsh Elevation / Topography	LUMP	1	\$0.00	\$0.00
	TBM Installation	EACH	0	\$0.00	\$0.00
	OTHER				\$0.00
	TOTAL SURVEY COSTS:				\$0.00

**GEOTECHNICAL**

GEOTECH DESCRIPTION:					
	Borings	EACH	0	\$0.00	\$0.00
	OTHER				\$0.00
	TOTAL GEOTECHNICAL COSTS:				\$0.00

**CONSTRUCTION**

CONSTRUCTION DESCRIPTION:						
	Rip Rap	LIN FT	TON / FT	TONS	UNIT PRICE	
		0	0.0	0	\$0.00	\$0.00
		0	0.0	0	\$0.00	\$0.00
		0	0.0	0	\$0.00	\$0.00
	Filter Cloth / Geogrid Fabric		SQ YD	0	\$0.00	\$0.00
	Navagation Aid		EACH	0	\$0.00	\$0.00
	Signage		EACH	0	\$0.00	\$0.00
	General Excavation / Fill		CU YD	0	\$0.00	\$0.00
	Dredging		CU YD	0	\$0.00	\$0.00
	Sheet Piles (Lin Ft or Sq Yds)			0	\$0.00	\$0.00
	Timber Piles (each or lump sum)			0	\$0.00	\$0.00
	Timber Members (each or lump sum)			0	\$0.00	\$0.00
	Hardware		LUMP	1	\$0.00	\$0.00
	Materials		LUMP	1	\$0.00	\$0.00
	Mob / Demob		LUMP	1	\$0.00	\$0.00
	Contingency		LUMP	1	\$0.00	\$0.00
	General Structure Maintenance		LUMP	1	\$0.00	\$0.00
	OTHER -- Veg Plantings		LUMP	1	\$0.00	\$0.00
	OTHER -- Sand Fencing		LF	0	\$0.00	\$0.00
OTHER -- Dike Gapping		LUMP	1	\$0.00	\$0.00	
TOTAL CONSTRUCTION COSTS:					\$0.00	

**TOTAL OPERATIONS AND MAINTENANCE BUDGET:** **\$3,285.00**

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## **Appendix D**

### **Field Inspection Form**

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 Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chalant Pass Restoration  
 State Project No. BA-38

**MAINTENANCE INSPECTION REPORT CHECK SHEET**

Project No./Name: **(BA-38-2) Pass La Mer to Chalant Pass Restoration**

Date of Inspection: 4/28/2010 Time: 10:00am

Structure No. n/a

Inspector(s): Richard, Merino, Sweeney

Structure Description: n/a

Water Level N/A

Type of Inspection: Annual

Weather Conditions: Windy, Partly Cloudy

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Sand Fencing	Good			1	The current fencing is in good condition and performing as designed.
Containment Dike	Good			2	Most gaps functioning as designed. All flowing water.
Settlement Plates	Fair				One is turned on its side, the other 6 are ok.
Plantings	Bad				Most plantings damaged.